



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/547,945	04/12/2000	Beatty Graydon	1930	5616
21834	7590	11/18/2003	EXAMINER	
BECK AND TYSVER 2900 THOMAS AVENUE SOUTH SUITE 100 MINNEAPOLIS, MN 55419			PASS, BARRY	
			ART UNIT	PAPER NUMBER
			3737	

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/547,945

Applicant(s)

GRAYDON ET AL.

Examiner

Barry Pass

Art Unit

3737

J.W.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crowley US 5,588,432 in view of Taccardi. Crowley discloses a therapy catheter with a sensing electrode and an electrically excited acoustic marker at the distal end (abstract, column 4); therapy electrode mounted at the distal end (Fig. 1A, 15A); a drug-delivery lumen (Fig. 7 A-D, column 17, lines 43-65); inflatable balloon at the distal end (Figs. 19a-19c). Crowley does not expressly teach non-contact, floating sensor electrodes. Taccardi US 4,649,924 teaches (abstract) endocardial mapping using non-contact sensor electrodes that make it possible to immediately obtain an endocardial map after a single cardiac beat and thereby determine the focus of a tachycardia promptly (column 4, lines 36-49). It would have been obvious to someone of

ordinary skill in the art at the time of the invention to provide the therapy catheter of Crowley with non-contact electrodes as taught by Taccardi so that it would be possible to immediately obtain an endocardial map after a single cardiac beat and thereby determine the focus of a tachycardia promptly

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Motamedi et al. US 5,824,005 in view of Taccardi. Motamedi et al. teaches (abstract, Fig. 1, columns 1-2) a catheter for sensing myocardial electrical activity and laser ablation with a fiberoptic to deliver the laser energy for tissue ablation. Motamedi et al. does not teach a non-contact sensing electrode. Taccardi teaches (abstract) endocardial mapping using non-contact sensor electrodes that make it possible to immediately obtain an endocardial map after a single cardiac beat and thereby determine the focus of a tachycardia promptly (column4, lines 36-49). It would have been obvious to someone of ordinary skill in the art at the time of the invention to provide the therapy catheter of Motamedi with non-contact electrodes as taught by Taccardi so that it would be possible to immediately obtain an endocardial map after a single cardiac beat and thereby determine the focus of a tachycardia quickly to facilitate prompt therapy.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walinsky et al. US 4,641,649 et al. in view of Taccardi. Walinsky et al. disclose a catheter for microwave ablation; a coaxial waveguide; an antenna at the distal end for locating and guiding the catheter. Walinsky et al. does not teach a non-contact sensing electrode. Taccardi teaches (abstract) endocardial mapping using non-contact sensor electrodes that make it possible to immediately obtain an endocardial map after a single cardiac beat and thereby determine the focus of a tachycardia

promptly (column 4, lines 36-49). It would have been obvious to someone of ordinary skill in the art at the time of the invention to provide the therapy catheter of Walinsky et al. with non-contact electrodes as taught by Taccardi so that it would be possible to immediately obtain an endocardial map after a single cardiac beat and thereby determine the focus of a tachycardia quickly to facilitate prompt therapy.

6. Alternatively, Claims 1, 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crowley. Crowley discloses a therapy catheter with a sensing electrode and an electrically excited acoustic marker at the distal end (abstract, column 4); therapy electrode mounted at the distal end (Fig. 1A, 15A); a drug-delivery lumen (Fig. 7 A-D, column 17, lines 43-65); inflatable balloon at the distal end (Figs. 19a-19c). Crowley does not expressly teach non-contact, floating sensor electrodes. The specification of this invention teaches either the use of contact electrodes or non-contact electrodes. Accordingly, it would have been an obvious matter of design choice to someone of ordinary skill in the art at the time of the invention to provide the therapy catheter of Crowley with non-contact electrodes because Applicant has not disclosed that using non-contact electrodes provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with non-contact sensing electrodes because a 3-dimensional endocardial map can be obtained as with contact electrode arrays.

Therefore, it would have been an obvious matter of design choice to modify the system of Crowley to obtain the invention as specified in the claims.

7. Alternatively, claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Motamedi et al. Motamedi et al. teaches (abstract, Fig. 1, columns 1-2) a catheter for sensing myocardial electrical activity and laser ablation with a fiberoptic to deliver the laser energy for tissue ablation. Motamedi et al. does not teach a non-contact sensing electrode. The specification of this invention teaches either the use of contact electrodes or non-contact electrodes.

Accordingly, it would have been an obvious matter of design choice to someone of ordinary skill in the art at the time of the invention to provide the therapy catheter of Motamedi et al. with non-contact electrodes because Applicant has not disclosed that using non-contact electrodes provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with non-contact sensing electrodes because a 3-dimensional endocardial map can be obtained as with contact electrode arrays.

Therefore, it would have been an obvious matter of design choice to modify the system of Crowley to obtain the invention as specified in the claim.

8. Alternatively, claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walinsky et al. Walinsky et al. discloses a catheter for microwave ablation; a coaxial waveguide; an antenna at the distal end for locating and guiding the catheter. Walinsky et al. does not teach a non-contact sensing electrode. The specification of this invention teaches the use of either contact electrodes or non-contact electrodes. Accordingly, it would have been an obvious matter of design choice to someone of ordinary skill in the art at the time of the invention to provide the therapy catheter of Walinsky et al. with non-contact electrodes because Applicant has not disclosed that using non-contact electrodes provides an advantage, is used for a particular

purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with non-contact sensing electrodes because a 3-dimensional endocardial map can be obtained as with contact electrode arrays.

Therefore, it would have been an obvious matter of design choice to modify the system of Crowley to obtain the invention as specified in the claim.

Conclusion


9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Beatty et al. US 5,297,579 teaches endocardial mapping using both contact and non-contact sensing electrodes.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry Pass whose telephone number is (703) 305-0726. The examiner can normally be reached on Monday-Friday, 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dennis Ruhl can be reached on (703) 308-2262. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0873.

Barry Pass 
November 6, 2003


DENNIS W. RUHL
SUPERVISORY PATENT EXAMINER